SINGLE FAMILY RESIDENTIAL EROSION & SEDIMENT CONTROL STANDARDS

City of MOUNT VERNON

• EROSION CONTROL FOR SMALL RESIDENTIAL LOTS •

This handout contains details sufficient for typical residential building construction; it is not intended to address all circumstances. The primary objective is perimeter control with best management practices (BMPs) being utilized to prevent erosion and minimize sediment from leaving the site.

The building permit holder is responsible for ensuring that adequate BMPs are in place and functioning until the construction project is brought to a close. There will be situations where protection may not be required. For example, two houses under construction on adjacent lots with surface drainage running front to back. Given this scenario, perimeter control between the two construction sites would not be required. However, should one project be completed prior to the other, BMPs may be required. When applying these practices and procedures to your project keep in mind the intent; and that is; *"to prevent erosion and minimize sediment from leaving the site."* Failure to do so can result in damage to adjacent property, damage to the city storm sewer system, and contribute to the polluting of streams, lakes and rivers.

The wet seasons occurs from October 1st through April 30th

• INSPECTIONS •

City inspectors will normally inspect erosion and sediment control measures in conjunction with routine inspections. Inspections will ensure that proper placement and installation of erosion and sediment control measures are in place.

The first inspection will occur at the time of the footing inspection. Standard items to be checked are: protection of adjacent lots, grading/excavating and that stockpiles are stabilized. If BMP's are not installed in the correct location and/or not installed correctly, the inspection may be denied.

It is anticipated that by the time the plumbing ground rough inspection is requested, backfilling of the foundation will have been complete and all erosion and sediment control measures will have been installed. If the permit holder fails to install the proper erosion and sediment control measure, this may result in the inspection being denied.

• CONTRACTORS RESPONSIBILITIES •

- The permit holder is responsible for the on-going maintenance of all lot specific erosion and sediment control devices.

- Periodic inspection shall be whatever is deemed necessary to ensure that erosion and sediment control measures are functioning as designed. In addition to standard periodic inspections, city code requires that an inspection be conducted after each rain event of 1/2" or more in a 24-hr period. Any problems noted during these inspections shall be corrected immediately.

- Once construction has commenced, the permit holder is responsible for the maintenance of erosion and sediment control measures protecting area inlets on their lots, as well as curb inlets along street frontage. It is critical that sediment not be allowed to invade the storm sewer system.

- The temporary construction entrance provides a place for parking vehicles off street and a spot where material can be off-loaded. The intent of the requirement is to provide a stable surface for parking vehicles where mud and other debris is not likely to be tracked onto the street. Proper maintenance of the area is required until such time as a permanent driveway can be put in place.

- **During the entire construction process the permit holder is responsible to ensure that mud, dirt, rocks and other debris are not allowed to erode onto city streets and sidewalks, nor tracked onto the streets by construction vehicles.** Should any mud or other debris find its way to the street, the contractor shall take immediate steps to have it removed.

• OTHER QUESTIONS •

There will be situations that fall outside the norms.

City inspectors will be available to discuss erosion and sediment control measures for any lot and the sequencing for installation.

If you have any questions or concerns, please contact the Community & Economic Development Department at: 360-336-6214.

• INSTALLATION SEQUENCING of BMPs •

1. Inlet protection-Ensure that the BMP's are in place and functioning for both area inlets and curb inlets along the street frontage.

2. Protection of adjacent lots-Install BMP's along the common lot line of adjacent sodded or seeded lots.

3. Grading/excavating-Install BMP's prior to any grading or excavating activities, where practical.

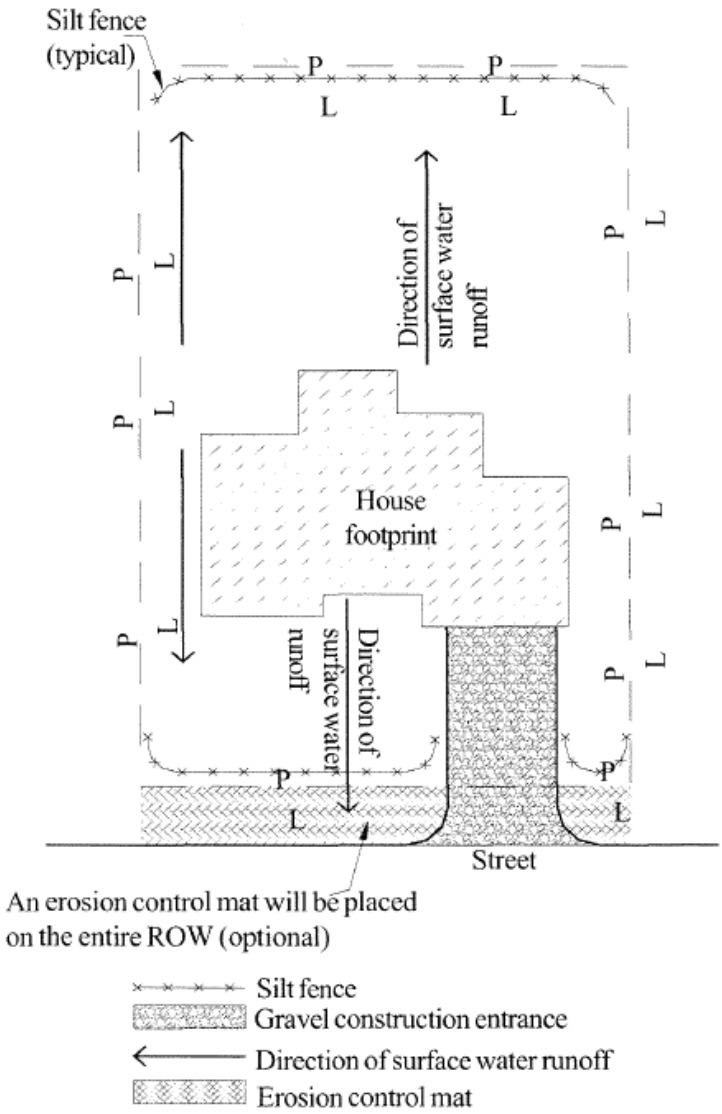
4. Stabilize Stockpiles-Install BMP's to stabilize stockpiles to prevent sediment from reaching the street or neighboring properties.

5. Backfill-Complete installation of all BMP's per the specified design, i.e. design example or other engineered design.

6. Temporary construction entrance-required (see detail)

7. Maintenance-The builder is responsible for maintaining and repairing all BMP's as needed throughout construction.

8. Final grading-BMP's may be removed to complete final grading and seeding of lot. If re-vegetation of the lot is delayed, the contractor is required to maintain BMP's until restoration or re-vegetation can occur.



• BEST MANAGEMENT PRACTICES •

BMP's -Examples include but are not limited to sediment fences, construction entrances, straw mat, seed and mulch. Details for the installation and maintenance of several of these BMPs are provided within this handout.

On the illustration to the left, one will notice that this single-family residential lot that is under construction has silt fence, a gravel construction entrance, and erosion control matting installed.

• MAINTENANCE of BMPs •

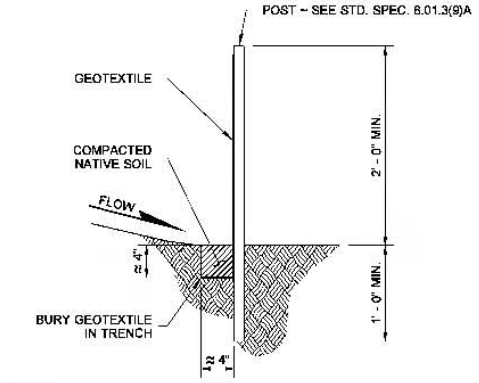
- Inspect BMP's at least once a week and after each 1/2" or greater rainfall. Make needed repairs immediately.
- Should the fabric of the sediment fence collapse, tear, decompose or become ineffective, replace promptly.
- Remove the sediment deposits as necessary provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid damaging or undermining the fence during cleanout.
- If the utilities are installed after BMP's have been put in place, the permit holder is responsible for control of erosion and sediment during their installation.

SILT FENCE

(Standard Plan, from WSDOT)

Silt fence shall be installed before any earth removal or excavation takes place.

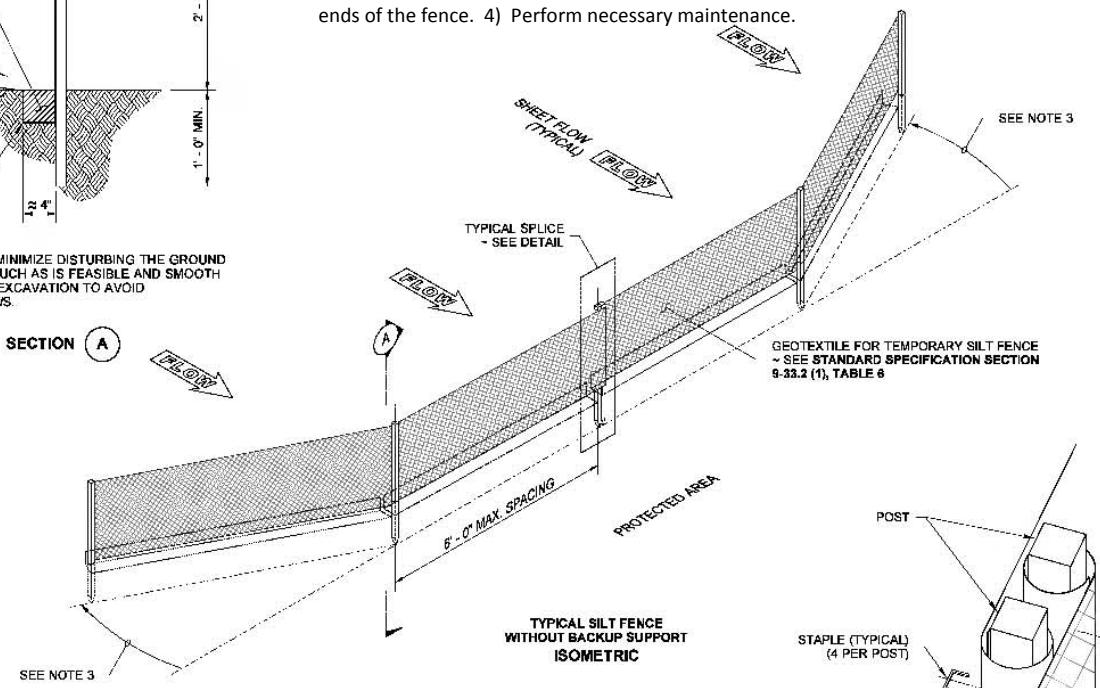
Notes: 1) Maximize detention of stormwater by placing fence as far away from toe of slope as possible without encroaching on sensitive areas or outside of the clearing boundaries. 2) Install silt fencing along contours. 3) Install the ends of the silt fence to point slightly up-slope to prevent sediment from flowing around the ends of the fence. 4) Perform necessary maintenance.



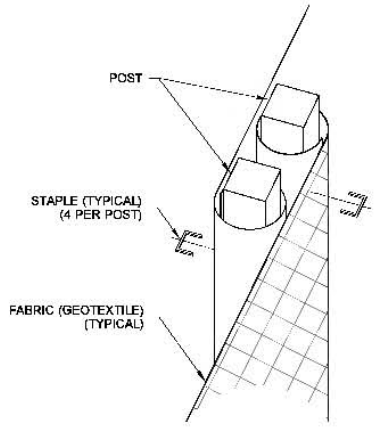
NOTE

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS.

SECTION A



TYPICAL SILT FENCE WITHOUT BACKUP SUPPORT
ISOMETRIC



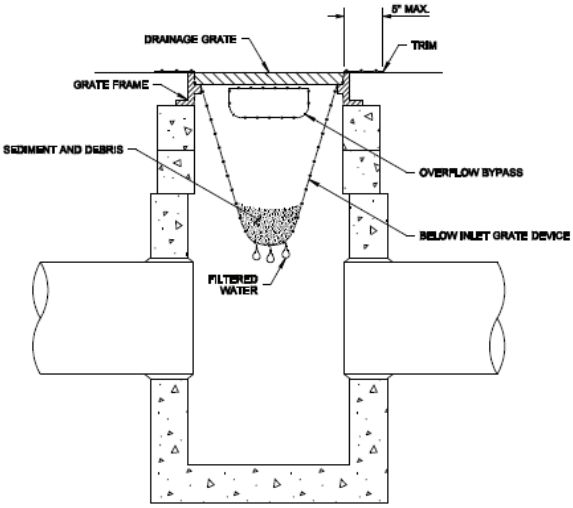
SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP. JOINING SECTIONS SHALL NOT BE PLACED IN LOW SPOTS OR IN SUMP LOCATIONS.

SPLICE DETAIL

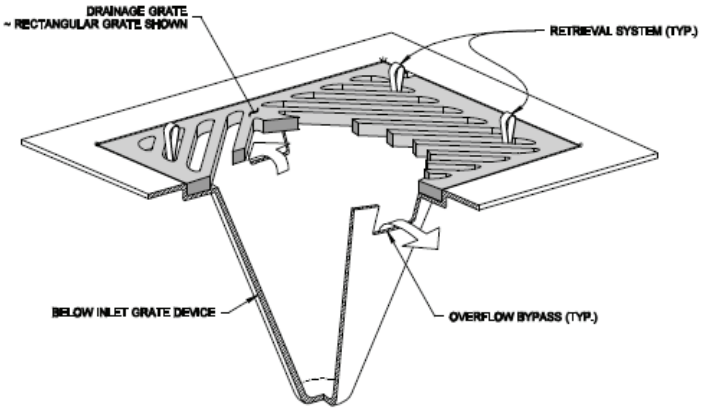
STORM DRAIN INLET PROTECTION

(Standard Plan, from WSDOT)

Storm drain inlet protection shall be installed before any earth removal or excavation takes place.



SECTION VIEW
NOT TO SCALE

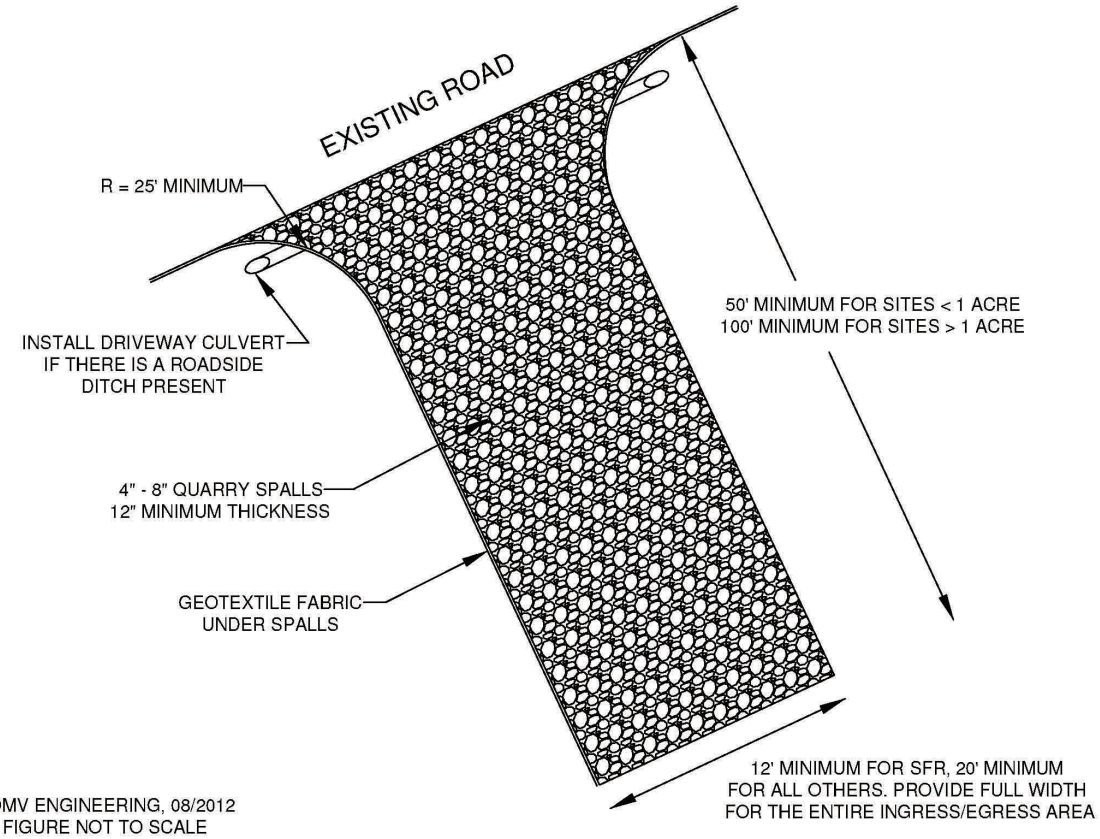


ISOMETRIC VIEW

TEMPORARY GRAVEL CONSTRUCTION ENTRANCES

Construction entrances shall be installed before any earth removal or excavation takes place.

1. INSTALLATION: The area of the entrance should be cleared of all vegetation, roots, and other objectionable material. The gravel shall be placed to the specified dimensions. Any drainage facilities required because of washing should be constructed according to the specifications on the plan. If wash rocks are used, they should be installed according to manufacturer's specifications.
2. AGGREGATE: 4" to 8" crushed quarry spalls.
3. FILTER FABRIC: Geotextile fabric shall be installed beneath the entire construction entrance.
4. ENTRANCE DIMENSIONS: The aggregate layer must be at least 12 inches thick. It must extend the fill width of the vehicular ingress and egress area. The length of the entrance must be at least 50 feet, or to the foundation if 50 feet cannot be achieved.
5. WASHING: If conditions on the site are such that most of the mud is not removed from the vehicle tires by contact with the gravel, then the tires must be washed before vehicles enter a public road. Wash water must be carried away from the entrance to a settling area to remove sediment. A wash rack and/or a drive through sump may also be used to make washing more convenient and effective.
6. MAINTENANCE: The entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with 2-inch stone, as conditions demand, and repair and/or clean out of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadway or into storm drains must be removed immediately.



COMV ENGINEERING, 08/2012
FIGURE NOT TO SCALE